

## **REMARKS**

Claims 38-45 stand rejected in the present application, while claims 46-49 were withdrawn from consideration. In response to the present Office Action, claims 44 and 46-49 are being cancelled. New claims 50-55 are being added. Therefore, following entry of this amendment, claims 38-43, 45 and 50-55 will be pending.

### **Rejections Under 35 U.S.C. §102**

Claims 38-45 were rejected under 35 U.S.C. §102 as being anticipated by Nelles.

Independent claim 38 relates to a method for cooling blocks of cheese which are placed sequentially into different sections of a tank. This claim has been amended to state that those sections are arranged horizontally with respect to each other. Liquid is then flowed through the tank from the section that contains the cheese blocks that have been in the tank substantially the greatest amount of time toward a section that contains cheese blocks that have been in the tank substantially the least amount of time. Thus the liquid flows horizontally between sections. This flow path directs the cooling liquid from the coldest section to the warmest section and thus does not transfer heat into the cheese as could occur if the liquid flowed from a section with warmer cheese to a section with colder cheese.

It is respectfully submitted that the Nelles patent does not flow liquid through a tank from horizontal section to horizontal section based on the amount of time that cheese has been in each section. As shown in Figure 1 of the reference, cooled brine flows from a supply pipe 32 through nozzles 33, 34 and 35 simultaneously into different horizontal

locations at the bottom of a tank 1. Upon exiting the nozzles, the brine flows upward through the tank (column 5, line 63 – column 6, line 7). The brine also flows horizontally to an overflow weir 23 at one end and into a reservoir 21 from which a pump forces the liquid back into the supply pipe 32 (column 5, lines 29-38). Although the undivided tank has a plurality of cages 15 as shown in Figure 2, each having an number of shelves 63 (Figure 6), the patent teaches a uniform flow of fluid through the tank to maintain the brine at a constant temperature and concentration at all times and locations in the tank (column 3, line 67 – column 4, line 3).

Although one might contend that each cage 15 is a separate horizontally arranged section, nothing in the patent suggests flowing liquid sequentially through those sections from the one containing the cheese that has been in the tank the greatest amount of time to that which has been in the tank the least amount of time. In fact, the various nozzles 33-35 introduce the brine uniformly across the bottom of all the sections and there is no mechanism for ensuring that the brine flows in the claimed sequence. In fact, regardless of how cheese may have been loaded into the different cages at different points in time, the claimed horizontal flow can never occur in the Nelles apparatus because the plurality of nozzles through which brine simultaneously enters the tank at various horizontal locations. Therefore, Nelles teaches away from the present sequential flowing method by stating that it is desirable to ensure that the brine flows in a manner which produces a constant temperature throughout the tank. Thus, Nelles did not even recognize that temperature variation of the brine occurs, depending upon the temperature of the cheese in the sections into which the brine is introduced into the tank.

Claim 42 has been amended to specify that the plurality of cooling cells are arranged horizontally and that the liquid is transferred sequentially from cooling cell to cooling cell, where in each transfer occurs from a cooling cell with cheese blocks that are colder than the cooling cell into the which the liquid then enters. As noted above, the Nelles system introduces fluid through nozzles 33-36 simultaneously into a number of cooling cells regardless of the temperature of cheese in those cells. Once in the tank, the liquid then flows upward toward the left end, in Figure 1, where the exit weir 23 is located. Therefore, unlike the present invention which has a plurality of control valves and pumps to properly direct the flowing the claimed manner. The liquid always flows in a fixed path in Nelles. In fact, because is the fluid flows simultaneously into a number cells the claimed flow pattern is extremely unlikely to occur, if not impossible.

Claim 38 was also rejected under 35 U.S.C. §102 as being anticipated by Johnson.

This claim states that while cheese blocks are confined in each section of the tank, liquid flows from the section that contains blocks of cheese which have been in the tank the greatest amount of time toward a section that contains cheese which has been in the tank substantially the least amount of time. Johnson does not confine the cheese blocks in different sections of a tank. The so called “tank” in Johnson is actually a looping channel 14 through which liquid flows to carry floating blocks of cheese 24. Normally liquid enters one end of the channel at the cheese inlet 26, flows through the curving channel 14, and drains from the cheese exit 28 at the opposite end (column 4, lines 21-43). This flow may be reversed, if the channel is not full of cheese blocks, so that the blocks travel from the exit 28 backward to the inlet 26 (column 7, lines 14-17 and 27-32).

Unlike the presently claim method, the flow of liquid in Johnson does not occur while cheese blocks are confined in different sections of the tank. Quite the contrary, the liquid flow in either direction carries the cheese blocks through the channel. In fact, Johnson says that reverse liquid flow can not occur if the channel is so full that the blocks are confined and can not move along the channel (column 7, lines 14-17). Because this reference does not teach confining the cheese blocks in a section of a tank, the Johnson patent teaches a different method that does not anticipate claim 38 under 35 U.S.C. §102.

### **New Claims**

Claim 50 recites that the different sections in claim 38 are formed by dividing the tank with walls into a plurality of cooling cells and is patentable for the reasons stated previously with respect to claim 38.

Claims 51-55 state that cheese blocks are submerged in each section of the tank. While the cheese blocks are submerged, claims 53-55 specify that liquid flows from the section with the cheese in the tank the longest to the section with the cheese that has been in the tank the shortest time.

The Johnson patent does not submerge the cheese and in fact requires that the cheese blocks float so as to be carried by the liquid flow. Thus this patent does not disclose the method in the new claims.

Claims 51 and 52 are patentable over the Nelles patent for the reasons stated above with respect to claims 38 and 42 from which these new claims depend.

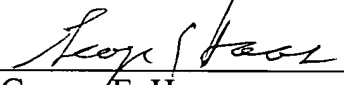
Claims 53 and 54 are similar to claims 38 and 40, respectively, and are patentable over the Nelles reference for the reasons stated above with respect to those previous claims. Depended claim 55 is patentable for the same reasons as its parent claim 53.

## **Conclusion**

In view of these distinctions between the subject matter of the present claims and teachings of the cited patents, reconsideration and allowance of the present application are requested.

Respectfully submitted,  
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